Centrality PA168 Series IP Phone PPPoE Configuration Guide

Now more and more ADSL, Cable Modem and Ethernet Broadband access users connect Internet with PPPoE protocol. This guide supplies a step-by-step operation on how to install and configure Centrality PA168 series IP Net Phone to ADSL, Cable Modem users.

1. Install the IP Phone (Take PA168S IP phone as example):

   1.1. Insert handset cord into handset cord jack at the left side of the base to connect the handset to the base. Refer to Fig 1.1 please.

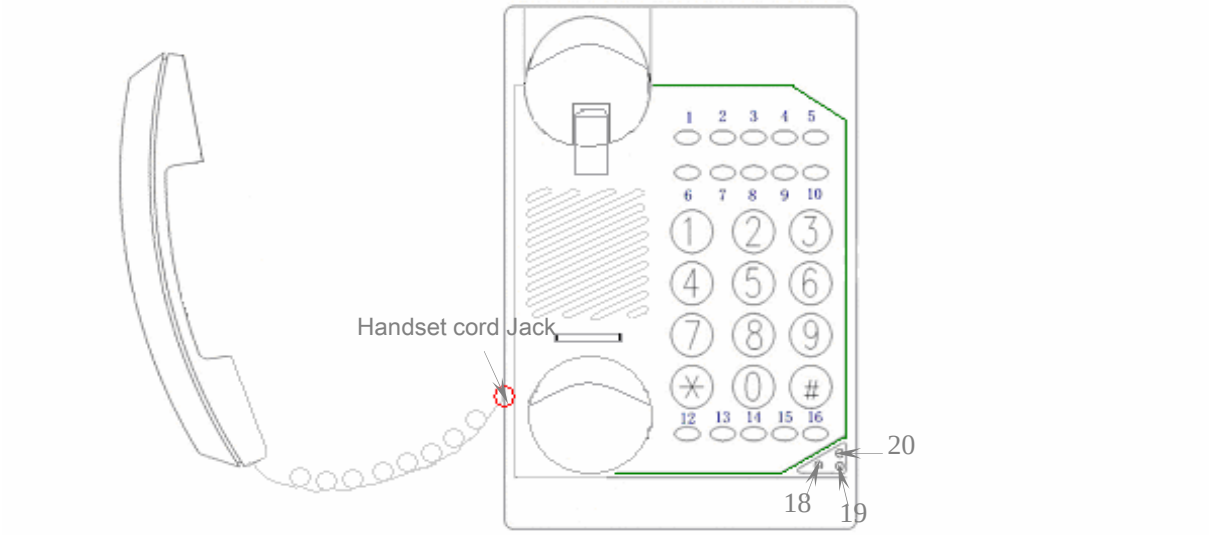

Fig 1.1 Connect the Handset and the Base of the Phone

   1.2. Plug the power adapter cord into the Power Jack. Then plug the other end of the power cord adapter into the appropriate wall outlet. Refer to Fig 1.2 please.

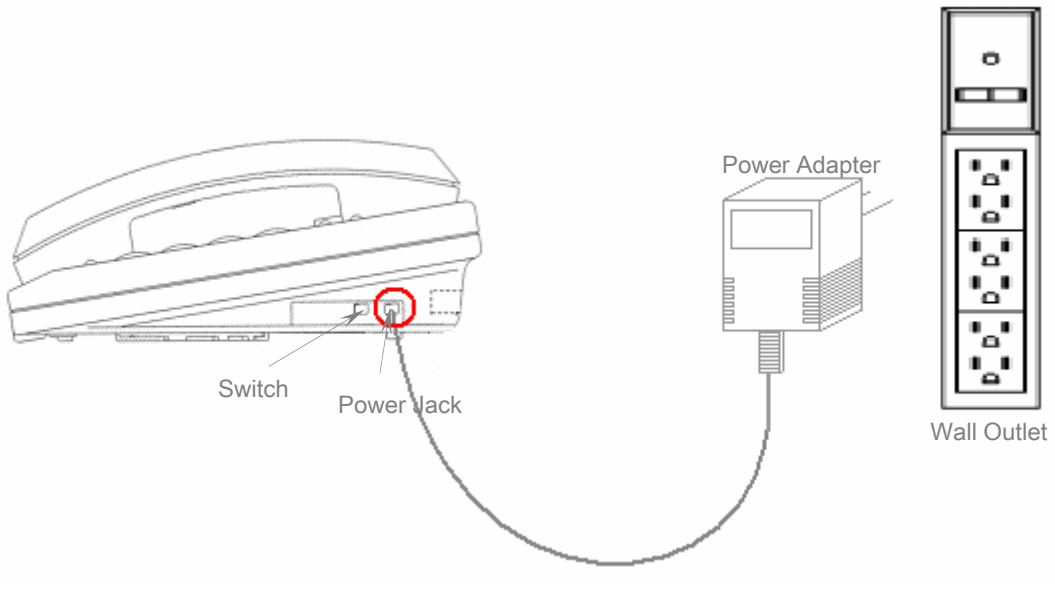

Fig 1.2 Connect Power Adapter to the Phone

1.3. Turn on the Phone: Turn on the phone by pulling the power switch to ON. Verify that No.18, 19 and 20 lights are on together, and then No.18 light is off; No.19 light blinks or is off ; No. 20 light blinks or is on.

1.4. Pick up the handset or press [Speaker], the dialed tone indicates that the phone starts successfully and is ready for call.

✎**Note** Please use the special power adapter packaged with Centrality PA168 series IP phone. The voltage is alternating current 220V, 50Hz.

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2. Check and note the IP address of PC used to set the phone.

1) Choose **Start>Run**, please refer to Fig 2.1.

2) In popup **Run** dialog, input **cmd** into **Open** field and click **OK** button, then DOS window will be displayed. Refer to Fig 2.2 and 2.3 please.

✎**Note** If the PC's OS is WinXP/2000/NT, please input **cmd**; if PC's OS is Win9X, please input **command**。

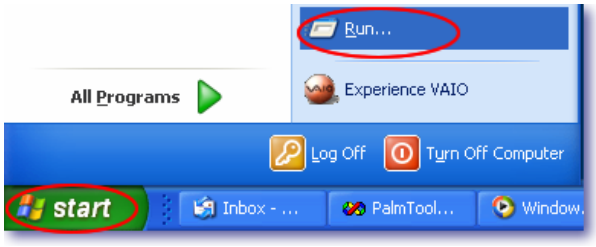

Fig 2.1 Choose Start>Run

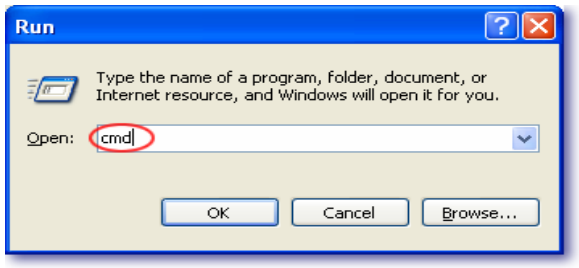

Fig 2.2 Enter DOS Window

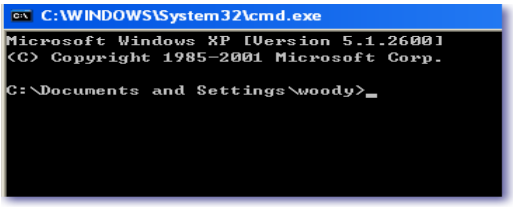

Fig 2.3 DOS window

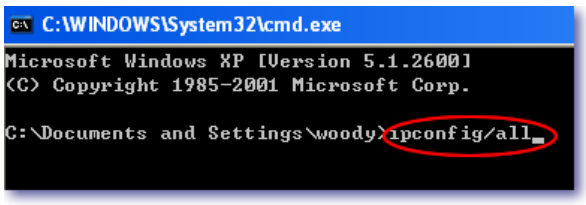

Fig 2.4 Run ipconfig Command

3) In DOS window, input **ipconfig/all** and press **Return**. Refer to Fig 2.4.

✎**Note** If the PC's OS is WinXP/2000/NT, please use **ipconfig/all** command; if PC's OS is Win9X, please use **ipconfig** command。

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4) The configuration of PC net adapter will be displayed. Refer to Fig 2.5

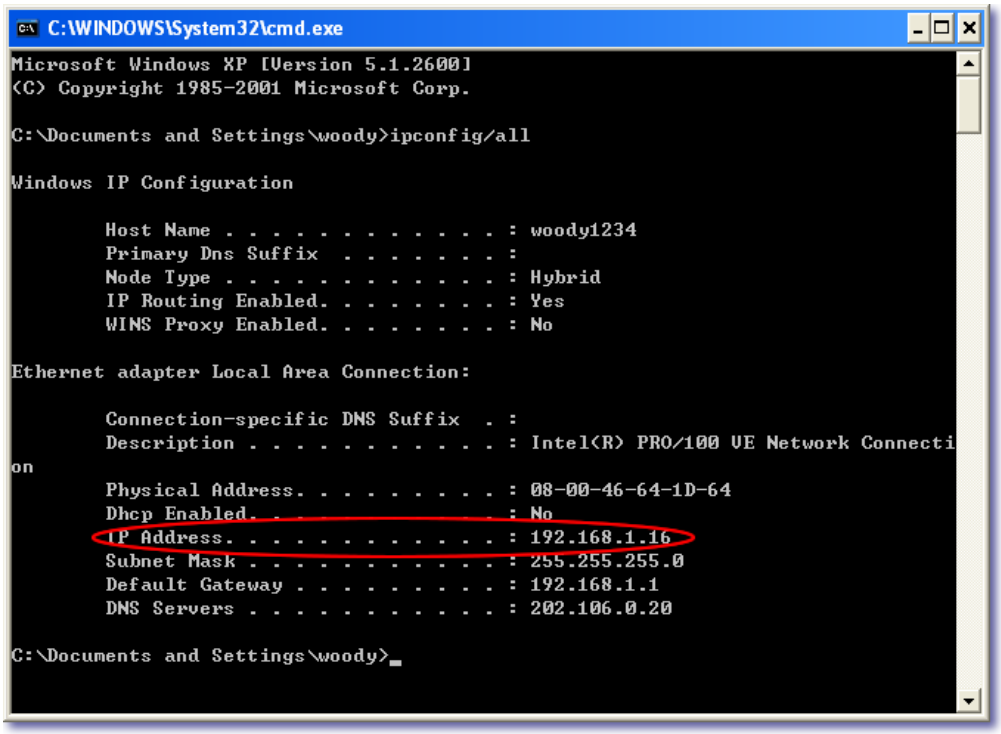

C:\WINDOWS\System32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.
C:\Documents and Settings\woody>ipconfig/all
Windows IP Configuration
Host Name . . . . . : woody1234
Primary Dns Suffix . . . . . :
Node Type . . . . . : Hybrid
IP Routing Enabled. . . . . : Yes
WINS Proxy Enabled. . . . . : No
Ethernet adapter Local Area Connection:
Connection-specific DNS Suffix . :
Description . . . . . : Intel(R) PRO/100 VE Network Connecti
on
Physical Address. . . . . : 08-00-46-64-1D-64
Dhcp Enabled. . . . . : No
IP Address. . . . . : 192.168.1.16
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : 192.168.1.1
DNS Servers . . . . . : 202.106.0.20
C:\Documents and Settings\woody>

Fig2.5 Check the IP address of PC on WinXp/2000/NT OS

3. Check the configured state of the IP phone: With the phone turned on press [Local IP], then you will hear the voice prompted IP address of the phone:

   - If the voice prompted IP address is 0.0.0.0, it indicates that DHCP is enabled but the phone is not assigned IP address. Please do as follows to disable DHCP and then set IP address manually.

     1) Press [Speaker] or pick up the handset, and then input the password of the phone. When No 18 light begins blinking once a second, please go to the next step.

Note Press **Speaker** key or pick up the handset and then input the password of the phone. Verify that No 18 light blinks once a second. It indicates that the phone is under setting mode

The default password of Centrality PA168 series IP phone is 1234.

2) Press [0] and [Local IP], then the phone will restart. Verify that No.18, 19 and 20 lights are on together, and then No.18 light is off; No.19 light blinks or is off ; No. 20 light blinks or is on. As soon as the phone restarts successfully, DHCP is disabled.

3) Repeat step 1) to make phone enter setting mode again.

4) Set the IP address of the phone manually: Designate an IP address such as 192.168.1.100 to the phone. Press 192*168*1*100 keys on the keypad orderly, and then pressing [Local IP].

5) As soon as the phone restarts successfully, please go to step 3.

- If the voice prompted IP address is 255.255.255.255, it indicates that PPPoE is enabled but the phone Dial-up unsuccessfully. Then please do as follows to disable PPPoE and then set IP address manually.

1) Press [Speaker] or pick up the handset, and then input the password of the phone. When No 18 light begins blinking once a second, please go to the next step.

2) Press [0] and [Local IP], then the phone will restart. As soon

as the phone restarts successfully, PPPoE is disabled.

3) Repeat step 1) to make phone enter setting mode again.

4) Set the IP address of the phone manually: Designate an IP address such as 192.168.1.100 to the phone. Press 192*168*1*100 keys on the keypad orderly, and then pressing Local IP .

5) As soon as the phone restarts successfully, please go to step 3.

- If the voice prompted IP address is neither 0.0.0.0 nor 255.255.255.255, it indicates that the phone is assigned an IP address successfully. Please take a note of the address and go to the next step. We take 192.168.1.100 as an example.

4. Prepare Cross Cable: Pull out the cross cable from the ADSL Modem or Cable Modem. Please refer to Fig 3.

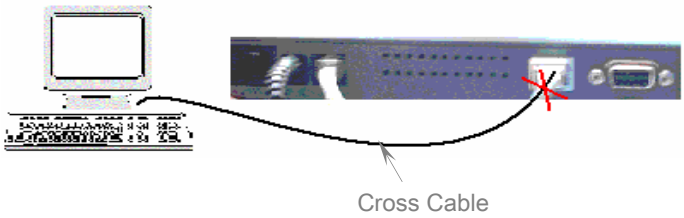


Fig 3 Prepare Cross Cable

If your ADSL Modem has USB interface, please prepare cross cable by yourself.

5. Connect PC and the IP phone: Insert one end of the cross cable into RJ-45

cord jack of the phone, and then insert the other end into the Ethernet interface of PC. Refer to Fig 4 please.

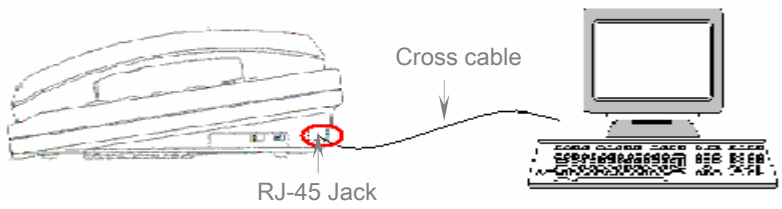
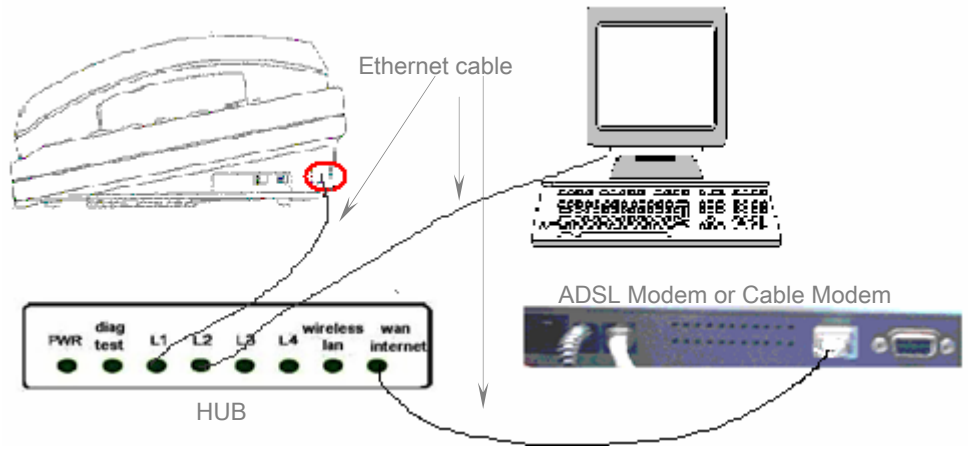


Fig 4 Connect PC and the IP phone with Cross Cable

If you get a HUB, you can use an Ethernet cable to linking the phone to the net directly by connecting HUB, phone and PC, and then connecting HUB and ADSL Modem. Refer to following fig:



6. Have completed above operation, please configure the phone as follows:

6.1. Open the setting tool: on a computer in the same segment with the phone, double click icon to open the PalmTool. Then input IP address of the phone into **local IP address** field (such as 192.168.1.100), then click **phone setting** button. The setting page of the phone will be

displayed.

✎**Note** Please visit http://www.aredfox.com/download/tools/PalmTool.zip to download PalmTool, if you have not installed it.

✎**Note** From version1.24, when **Debug** set as **0[disable]**, PalmTool can not connect to the IP phone directly. Then please set **Debug** as other value. When use above mentioned two methods to set IP phone, please use super password **19750407** to login to the configuration page. If this password is invalid, please ask phone provider for a valid one.

6.2. PPPoE set : Select pppoe in iptype dropdown list. Fill ADSL account into ppp id field; and then fill ADSL password into ppppin field.

Set protocol service: according to different protocol, set different service. Refer to following context to get detailed operation:

a) H323 protocol : When H323 protocol is used, the relevant parameters are **use service**, **service addr**, **service port** and **phone number.**

① Set protocol service: With H323 protocol used, the protocol service refers to login the gatekeeper. Gatekeeper is the key component of H.323 protocols regulated by ITU-T. It provides an address translation service. With H323 protocol used, when you want to call other IP phone by dialing phone number instead of IP address, please check **use service** option and then type IP address or domain name of the

GK into **service addr** field.

Note If you have not got any gatekeeper, we suggest you to run a free gatekeeper based on open resource. Please visit www.gnugk.org or www.openh323.org to download a program and then run it on a PC with public IP. Please take a note of the IP address of this PC and then fill it into **service ip** address field.

② Set service port: With gatekeeper used, please set **serviceport** as 1719

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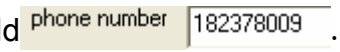
Note With H323 protocol used, the IP phone are allowed to log in the gateway by being set as follows: uncheck **use service** option; then fill the IP address of gateway into **service addr** field; then set **service port** as 1720.

③ Set phone number: Enter a 7 or 8 digit number into **phone number** field 

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Note Without gatekeeper or gateway used, the IP phone can communicate with other IP phone or H323 terminal (such as Microsoft Netmeeting 3.01) with public IP address. The operation is as follows: Pick up the handset or press **Speaker**, and then use the keypad to enter the IP address of the other party. Please use"*"to replace ".". For example, the IP address of the device you wish to call is 166.111.19.88, please press 166*111*19*98 in order on the keyboard, and then press **Call** or # to place the call. Once the call connection has been established and the ring tone has sounded, wait for the other party to answer.

2) MGCP protocol :With MGCP protocol used, the relevant parameters are

use service, **service addr**, **service port**, **register port**, **account** and **pin**.

① Set protocol service: With MGCP protocol used, the protocol service refers to log in Call Agent. Please check the **use service** option and then fill the IP address or domain name of the CA into **service addr** field (such as 211.98.66.43).

② Set receive port of Call Agent：the default port is 2727；so please set **service port** as **2727**。

③ Set information sent port: the default port is 2427；so please set **register port** as **2427**。

④ Set EndpointID：EndpointID is used to identify gateway and port of gateway. It includes two parts: Local name and Domain name. Local name used to identify different ports of one gateway; while Domain name used to identify gateway, it could be string or IP address of gateway. “LocalName @ DomainName” consists an EndpointID。 Please type the Local name and Domain name into **account** and **pin** fields respectively.

⑤ Set phone number: Enter a number into **phone number** field.

3) SIP protocol：With SIP protocol used, the relevant parameters are **use service**, **service addr**, **phone number**, **service port** and **register port**.

① Set protocol service: with SIP protocol used, the protocol service refers to Proxy Server. Please check **use service** option according to system and then enter the IP address or domain name of SIP Proxy Server into the **service addr** field.

② Set service port: enter the default port 5060 into **service port** field.

③ Set register port: enter the default port 5060 into **register port** field.

④ Set Local ID：Fill Local ID into **phone number** field.

4) Net2phone protocol :With Net2phone private protocol used, the relevant parameters are **use service**, **service addr**, **service port**, **account** and **pin.**

① Set protocol service: with Net2phone private protocol used, the phone should login the designated server. Please check **use service** option.

② Set **service addr**: please fill 216.53.3.52; 4.43.114.39; 205.228.245.8 or 4.43.114.38, or call1.net2phone.com ; call2.net2phone.com ; skip1.net2phone.com or skip2.net2phone.com into **service addr** field.

③ Set servieport: fill the default number **6801** into **serviceport** field.

④ Set account: fill the account (such as 13801038908) into **account** field.

⑤ Set pin: fill the pin (such as 7085) into **pin** field.

6.3. Enable multi-settings: From released version 1.08, the setting of IP phone is changed. More than one sets of parameters can be saved into the SDRAM of the IP phone. Usually the phone uses current settings to call out. With **switch** selected in **use inner line** dropdown list, the user can use backup settings 1 and backup settings 2 by dialing the number designated in **local prefix** and **nonlocal prefix**. Then the users can place calls using backup settings by switching between multi-settings without changing the settings.

Note When PA168S IP phone is used, 5 settings are saved in the phone,
multi-settings allows you to switch between different system and operation.
multi-settings Features only support H323 protocol.

Save current settings: click OK button to confirm the configuration. Once the phone restarts auto, current setting is saved into the phone.

★ As for those IP phone with LCD, beside above methods to set the phone on computer, it also allowed to be set with keypad as follows:

a) Using keypad to input the password of the IP phone and then press #, till Password: is displayed on the LCD. Then please input the password of the phone again and press Speaker to enter setting mode.

Note From version1.24, when **Debug** set as **0[disable]**, please use super password **19750407** to enter configuration mode. If this password is invalid, please ask phone provider for a valid one.

b) Enable PPPoE mode: When LCD displays network settings, enter sub menu by pressing Speaker; and then press Vol+ to turn over the menu till LCD displays ip type 0[static]; then press Local IP, then you will see a cursor flashes at the beginning of the second line. Please press 2 and Speaker to enable PPPoE. Once ip type 2 [pppoe] is displayed on LCD, it indicates that you have done it successfully.

c) Set PPPoE account: Continue pressing Vol+ to turn over the menu, till ppp id is displayed on LCD, and then press Local IP to enter change mode. Once a cursor flashes at the beginning of the second line, please input ADSL user name with keypad, take test1 as an example, press 8 key twice, 3 key thrice, 7 key five times, 8 key twice and 1 key once; and then press Speaker to confirm. Once LCD displays ppp id test1, it indicates that you have done it successfully.

d) Set PPPoE pin: Continue pressing Vol+ to turn over the menu, till LCD displays ppp pin, and then press Local IP to enter change mode. Once a cursor flashes at the beginning of the second line, please input ADSL password with keypad, take test1 as an example, press 8 key twice, 3 key thrice, 7 key five times, 8 key twice and 1 key once; and

then press [Speaker] to confirm. Once LCD displays [ppp pin test1], it indicates that you have done it successfully.

✎**Note** To change case of input characters, please press # once after press **Local IP**.

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e) Enter protocol sub menu: press [Redial] key to exit networking setting menu; once [network settings] is displayed again, press [Vol+] to turn over to protocol setting menu [protocol settings], then press [Speaker] to enter it.

f) Set protocol (take H323 as example): Once you enter protocol setting menu, you will see protocol setting sub menu. If current protocol is H323, that is to say, if [protocol 0[h323]] is displayed on LDC, press [Vol+] to the next menu; if current protocol is not H323, press [Local IP] to enter change mode and then press [0] and [Speaker] to set the protocol as H323.

g) Enable use service: Continue pressing [Vol+] to turn over the menu, till LCD displays [use service 0[disable]], and then press [Local IP] to enter change mode. Once a cursor flashes at the beginning of the second line, please press [1] and [Speaker] to enable use service. Then verify that [use service 1[enable]] is displayed on LCD.

h) Set service address (take 203.93.9.57 as example): Please continue pressing [Vol+] to turn over the menu, till LCD displays [service address]

and then press [Local IP] to enter change mode. Once a cursor flashes at the beginning of the second line, press 203*93*9*57 keys in order to set the GK IP; then click [Speaker] to confirm. Please verify that [service address 203.93.9.57] is displayed on LCD.

i) Set service port (take 1719 as example): pressing [Vol-] to turn over the menu backward, till LCD displays [service port] ; and then press [Local IP] to enter change mode. Once a cursor flashes at the beginning of the second line, press 1719 keys in order to set service port; then press [Speaker] to confirm. Verify that [service port 1719] is displayed on LCD.

j) Enter phone setting sub menu: press [Redial] key to exit protocol setting menu; once [protocol settings] is displayed again, press [Vol+] to turn over to phone setting menu [phone settings] , then press [Speaker] to enter it.

k) Enable multi-settings: Once you enter protocol setting menu, continue pressing [Vol+] to turn over the menu, till [use inner line 0[disable]] is displayed on LCD; and then press [Local IP] to enter change mode. Once a cursor flashes at the beginning of the second line, press [2] and [Speaker] to enable multi-settings. Please verify that [use inner line 2[switch]] is displayed.

l) Set value switching to backup setting 1 (take 56 as example): Please

press Vol+ to turn over the menu, till local prefix is displayed on LCD, and then press Local IP to enter change mode. Once a cursor flashes at the beginning of the second line, press 56 keys to set the value, and then press Speaker to confirm. Verify that local prefix is displayed.

m) Refer to step l) to set the value switching to backup setting 2 (take 57 as example).

n) Exit and save settings: Continue pressing Redial to reach save setting menu, until the LCD displays save settings, please press Speaker to save settings. When save Are you sure? is displayed on the LCD, please press Speaker again to confirm.

6.4. Set backup setting: to allow the phone switch between different settings, please do as follows:

1) Write setting files: After the above setting is saved into the phone as current setting, please write the backup settings in txt format according to your requirement. For example: with H323 protocol used, backup setting 1 sets the phone call other IP phone log in the gatekeeper 203.93.9.57; while backup setting 2 sets the phone to call PSTN phone by eTalk card. Refer to following settings please:

```
[SETTING1]
service=1
```

```
serviceport=1719
proxy=2
serviceaddr=203.93.9.57
dialplan=0
prepaid=0

[SETTING2]
service=1
serviceport=1719
proxy=0
serviceaddr=202.91.230.91
dialplan=2
dialnumber=00
innerline=0
serviceid=ETNSGK
prepaid=2
account=0117ETNS
pin=586095682629
```

Note Parameters here are same with the telnet command. Letters in "[]"should be capital.

b) Update files: In PalmTool index page, input the IP address of the phone into the **ip address in chip**, and then click **update alternate** button, then please select the saved setting files (such as setting.txt) in following window to update.

After updating, the backup settings cannot be seen in PalmTool. To check and change the backup setting, please use **load**, **store** and **set** command in Telnet. For example, change the dial rule in backup setting 3, please do as follows: Enter Telnet command window firstly: on the PC connecting with the phone, click **Start>Run**, and then input **telnet 192.168.1.100** into the **Run** dialog. Refers to following images please:

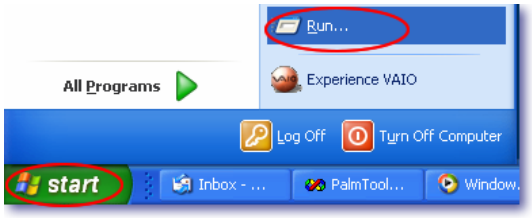


Fig6.4 Select Start>Run

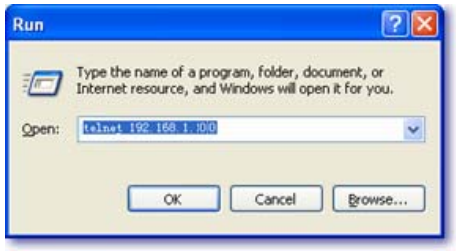


Fig6.5 Input Telnet command

In Telnet window, load backup setting 3 to the current position by using **load** and then check the setting with **get** command as follows:

```
PA168S V1.31 settings
Password: ********← Input password
P:\>load 3        ← Load backup setting 3 to current position
P:\>get           ← Check current setting
iptype 0[static]
ip 192.168.1.100          subnetmask 255.255.255.0    router 192.168.1.254
dns 202.106.196.152     dns2 202.106.196.115          mac 00-09-45-65-a3-e6
protocol 0[h323]           proxy 2[citron]
```

Then you can change the setting with **set** command as follows:

```
upgradeaddr [empty]
ntsip 210.59.157.10        daylight 0[disable]
timezone 20[(GMT-03:00)Greenland]
P:\>set dialplan 1      ← Enable dial rule
P:\>set iddcode 86      ← Set country code
P:\>set iddprefix 00    ← Set country code prefix
P:\>set dddprefix 0     ← Set long distance code prefix
P:\>set dddcode 10      ← Set long distance code
P:\>store 3       ← Save current setting to backup setting 3
P:\>write       ← Confirm change
```

7. Connect the IP phone into the Internet as follows:

7.1. Disconnect the IP phone and PC: Turn off the phone and then pull out the cross cable from PC. Refer to Fig 7.1 please.

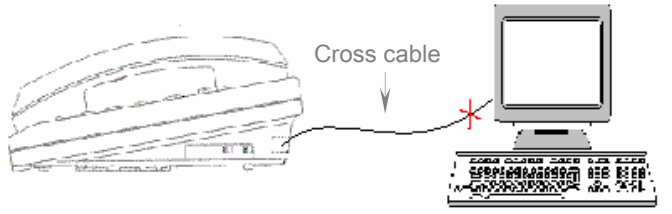


Fig 7.1 Disconnect the IP Phone and PC

7.2. Connect the Phone to Internet: Insert the end pulled out from the PC into the RJ-45 cord port of the ADSL Modem or Cable Modem. Refer to Fig 12.2 please. Then turn on the IP phone.

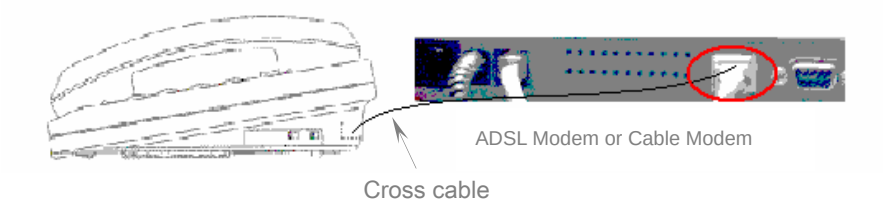


Fig 7.2 Connect the Phone to Internet

8. Communication: With successful PPPoE dial-up, ISP automatically assigns IP address, subnet mask and router IP to the phone. And then the phone will log in the procotol. Verify that No. 19 light blinks and then is off. Then you can use the phone to communicate with other party as follows:

8.1. Place the calls:

1) Call other IP phones log in the same server as follows:

Pick up the handset or press Speaker, and then use the keypad

to enter the phone number of the other IP phone, such as 87452356. Then press # or Call to confirm. Once the call connection has been established and the ring tone has sounded, wait for the other party to answer. When the other party answers, you can begin speaking. When the call is over, put back the handset or press Speaker again. The dialed number has been saved into the last calls made buffer.

2) With multi-settings being enabled, for example, current setting is calling other IP phone log in GK (203.93.9.57); while backup setting 1 is calling ordinary phone by eTalk card, do as follows:

① Call other IP phone log in the same GK:

Pick up the handset or press Speaker, and then use the keypad to enter the phone number of the other IP phone, such as 87452356. Then press # or Call to confirm. Once the call connection has been established and the ring tone has sounded, wait for the other party to answer. When the other party answers, you can begin speaking. When the call is over, put back the handset or press Speaker again.

② Call ordinary phone by eTalk card:

Pick up the handset or press Speaker, and then switch to backup setting 1 by pressing the designated nonlocal prefix code, such as 9. Once you hear the eTalk card balance prompt,

Please dial the complete number of the other party, such as 00861082378008, and then press # or Call to confirm.

Once the call connection has been established, you will hear a number prompting the allowed speaking time. For example, 240, it means that you can communicate with the other party for 240 minutes.

When the ring tone has sounded, wait for the other party to answer. When the other party answers, you can begin speaking. When the call is over, put back the handset or press Speaker again.

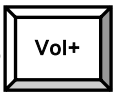
8.2. Receive the calls: When the phone rings, you can receive the call by following methods:

1) Use handset: Pick up the handset and begin speaking. When the call is over, put the handset back.
2) Handset to hand free: While receiving call with handset, press Speaker on the keypad and then put down the handset. When the call is over, press Speaker again.
3) Hand free: Press Speaker to speak to the other party. When the call is over, press Speaker again.
4) Hand free to handset: While receiving the call with the Speaker Pressed, pick up the handset to continue the call. When the call is over, put back the handset.

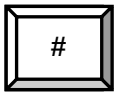
Note To assure the quality of speaking; do not be far way from the speaker. The limitation is 40 CM.

8.3. Review the calls:

1) Review the received calls: please press

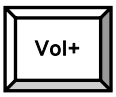
with the phone turned on. Then you will hear the voice prompt of the latest received number. To turn over the record backward or forward, please press 

or

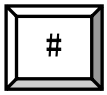
. During the reviewing, you can call the current nubmer. For example, when you hear “No.2 ,87452356”, you can press 

.Then the phone will call 87452356 without picking up the handset.

2) Review the missed calls: please press

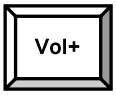
with the phone turned on. Then you will hear the voice prompt of the latest missed calls. To turn over the record backward or forward, please press 

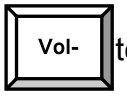
or

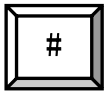
. During the reviewing, you can call the current number. For example, when you hear “No.2 ,87452356”, you can press 

.Then the phone will call 87452356 without picking up the handset.

3) Review the made calls: please press

with the phone turned on. Then you will hear the voice prompt of the latest calls made. You can press 

or 

to turn over the record backward or forward. During the reviewing, you can call the current number. For example, when you hear “No.2 ,87452356”, you can press 

.Then the phone will call 87452356 without picking up the handset.

Centrality Communications CO., Ltd reserves the right to make changes in technical and product specification without prior notice.

Centrality PA168X IP Phone PPPoE Configuration Guide

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